

BSAC recommendations for the fishery in the Baltic Sea in 2023

The BSAC recommends setting the catch levels for the Baltic stocks in 2023 at the values indicated in the table below. For divergent positions, a list of ExCom members subscribing to the specific position is indicated as a footnote. For all stocks, the recommendations are formulated and agreed after careful consideration of the scientific advice.

	ICES advice on fishing opportunities 2023 ¹		BSAC recommendation for EU TAC 2023	BSAC minority positions TAC 2023
Cod SDs 22-24	943 t (commercial and recreational catches)	MSY approach	943 t (commercial catches and recreational catches of 1 bag limit)	0 t² Recreational anglers: preserve fishing opportunities from 2022³ 710 t⁴
Cod SDs 25-32	0 t	Precautionary approach	Bycatch TAC 600 t⁵, or 2,500 t⁶ EU TAC 3,550 t⁷ (F = 0.05 - ICES estimate)	0 t⁸

¹ Note that reference is made to ICES headline advice only. More details and nuances may be found in the “Issues relevant for the advice” section of the ICES advice.

² CCB, WWF, Fisheries Secretariat, Finnish Association for Nature Conservation (FANC)

³ European Anglers Alliance (EAA), Deutscher Angelfischerverband (DAFV)

⁴ Latvian Fisheries Association

⁵ Federation of Finnish Fisheries Associations, Finnish Fishermen's Association, Association of Fisheries Protection (Fischereischutzverband) and Association for Low Impact Coastal Fishery PO, Low Impact Fishers of Europe (LIFE)

⁶ National Chamber of Fish Producers, Association of Fishermen of Sea-PO, the Darłowska Group of Fish Producers and Shipowners, Fish Producers' Organisation Bałtyk

⁷ Swedish Fishermen PO (SFPO), Sweden Pelagic Federation PO (SPF), Danish Fishers PO (DFPO)

⁸ CCB, WWF, Fisheries Secretariat, Finnish Association for Nature Conservation (FANC) and European Anglers Alliance (EAA)

Herring SDs 22-24	0 t	MSY approach and precautionary considerations	7,000 t⁹	788 t (roll-over of 2022 TAC)¹⁰ 0 t¹¹
Herring SDs 25-29, 32, ex GoR	Range 70.130 – 95,643 t	EU multiannual plan (MAP) for the Baltic Sea	EU TAC of 93,226 t – 9.5% of the Russian share = 86,557 t (MAP F_{MSY})	≤ 61,051 t¹² <49,077 t¹³
Herring Gulf of Riga SD 28.1	Range 33,519 t – 50,079 t	EU multiannual plan (MAP) for the Baltic Sea	45,643 t (Calculation for the management area based on MAP F _{MSY})	≤ 45,643 t
Herring SDs 30-31	Range 80,047 t – 103,059 t	EU multiannual plan (MAP) for the Baltic Sea	102,719 t (F_{MSY})¹⁴ 80,047 – 102,719 t (F_{MSY} lower - F_{MSY})¹⁵	≤ 80,047 t¹⁶ < 51,360 t¹⁷

⁹ Danish Pelagic PO (DPPO), Danish Fishers PO (DFPO), Association of Fishermen of Sea-PO National Chamber of Fish Producers, Swedish Pelagic Federation PO (SPF), Swedish Fishermen PO (SFPO)

¹⁰ Association of Fisheries Protection, [Low Impact Fishers of Europe \(LIFE\)](#)

¹¹ CCB, WWF, Fisheries Secretariat, Finnish Association for Nature Conservation (FANC) and European Anglers Alliance (EAA), ~~[Low Impact Fishers of Europe \(LIFE\)](#)~~

¹² CCB, WWF, Fisheries Secretariat, Finnish Association for Nature Conservation (FANC) and European Anglers Alliance (EAA)

¹³ BalticWaters2030, Low Impact Fishers of Europe (LIFE), Association for Low Impact Coastal Fishery PO, Association of Fisheries Protection

¹⁴ Swedish Fishermen PO (SFPO), Sweden Pelagic Federation PO (SPF)

¹⁵ Federation of Finnish Fisheries Associations, Finnish Fishermen's Association

¹⁶ CCB, WWF, Fisheries Secretariat, Finnish Association for Nature Conservation (FANC) and European Anglers Alliance (EAA)

¹⁷ BalticWaters2030, Low Impact Fishers of Europe (LIFE), Association for Low Impact Coastal Fishery PO, Association of Fisheries Protection

Sprat SDs 22-32	Range 183,749 t – 317,905 t	EU multiannual plan (MAP) for the Baltic Sea	317,905 t - Russian share 10.08% = 285,860 t (F_{MSY} upper) ¹⁸	≤ 224,114 t¹⁹ (10.08% of Russian share deducted) < 124,610 t²⁰
Plaice SDs 22-32	SD 21-23: 11,914 t SD 24-32: 4,633 t	SD 21-23: MSY approach SD 24-32: MSY approach	13,315 t (MSY approach)	≤ 13,315 t (F_{MSY} lower) < 8,681 t²¹
Salmon SDs 22-31	ZERO CATCH	ICES evaluated last year's advice of zero catch and according to best scientific advice advises ZERO CATCH for 2023.	-	0 in mixed stock fisheries at sea, ≤ 50,000 salmon in SDs 29 north–31²² One fish per recreational angler per day²³ ≤ 75,000 salmon in SDs 29 north–31^{24, 25} 91,132 salmon in SD 22-31²⁶
Salmon SD 32	11,800 salmon	Roll over of 2022 advice	9,204 salmon	≤ 9,204 salmon (Russian share deducted)

Please note that the recommendations relate to the TACs for the regulatory areas, not to the different stock components. Further explanation of how the recommendations for each stock have been reached is given in the text below.

¹⁸ Swedish Pelagic Federation PO (SPF), Swedish Fishermen PO (SFPO), Finnish Fishermen's Association, Danish Fishers PO (DFPO), Danish Pelagic PO (DPPO), National Chamber of Fish Producers, Association of Fishermen of Sea-PO, the Darłowska Group of Fish Producers and Shipowners, EFFOP, Fish Producers' Organisation Bałtyk, Estonian Fishermen's Association

¹⁹ CCB, WWF, Fisheries Secretariat, Finnish Association for Nature Conservation (FANC) and European Anglers Alliance (EAA)

²⁰ BalticWaters2030, Low Impact Fishers of Europe (LIFE), Association for Low Impact Coastal Fishery PO, Association of Fisheries Protection.

²¹ BalticWaters2030, Low Impact Fishers of Europe (LIFE), Association for Low Impact Coastal Fishery PO

²² in the Gulf of Bothnia and the Åland Sea in the SDs 29 (north) - 31 within 4nm from the coast

²³ European Anglers Alliance (EAA), Deutscher Angelfischerverband (DAFV)

²⁴ in the Gulf of Bothnia and the Åland Sea in the SDs 29 (north) - 31 within 4nm from the coast

²⁵ Finnish Fishermen's Association

²⁶ Association of Fishermen of Sea-PO

General comments to the ICES advice for the fishery in the Baltic Sea in 2023

The recommendations presented here have been developed during and after the presentation of the ICES advice by ICES Vice-Chair of ACOM, Dorleta Garcia, and the following discussions, at the Joint Working Group held on 20th June. A draft was sent for written input to the Working Group members and the Executive Committee members and was finalised by the Executive Committee on 30th June 2022. Additional delay for written input was given to the Executive Committee members. Following requests for inclusion of additional comments, the recommendations were approved by fast-track written procedure on 13th July 2022.

The BSAC is deeply concerned about the impacts of the pandemic and the war in Ukraine on the fisheries sector. The war has already significantly disrupted the fishery and the fish market in the Baltic and resulted in high fuel prices, logistic issues and disruptions in market supplies. These problems will only partly be solved by the emergency support to the sector provided by the European Union. The BSAC underlines the contribution of the Baltic fisheries to food security in the European Union, and also in Ukraine. Sprat and herring are proven to be strategic food resources. The EC have implemented measures to mitigate the disruption in the strategic food supply chain and maintain the food safety and food sovereignty of the EU. The current situation should be taken into account when discussing and deciding on the fishing opportunities for 2023 in the Baltic. For sprat in particular, the managers should consider a temporary flexibility with regard to meeting the set of formal conditions, which allow to set the TAC according to the F_{MSY} upper value. There are other views among members on this, presented under the sprat section.

State of the Baltic

The BSAC once again acknowledges that the Baltic is severely challenged, and two stocks are faced with zero catch advice (eastern Baltic cod stock and western Baltic herring).

Factors affecting the fish stocks

There is agreement on the continued need to focus on the overall ecosystem, and the other factors that are affecting the well-being of certain stocks. Fishing is one of the factors that is having an influence on the stocks. Several other challenging developments are occurring at the same time, among other species interaction and climate change. The BSAC welcomes the fact that ICES advice will in the future include a chapter on conservation status for each stock in order to deliver ecosystem-based management options. Estimation and quantification of the effects of species interactions need to be undertaken urgently.

Selectivity in the fisheries

The limited commercial fishing opportunities for both Baltic cod stocks brought into focus the imperative need to use technical solutions to reduce the catch of cod whilst continuing fisheries for stocks that have good status²⁷.

The BSAC is deeply concerned with the fact that the gears aimed at avoiding the capture of cod have not yet been implemented in the Baltic fisheries. The BSAC had discussed this issue on several occasions in the past two years and gave substantial input to the BALTFISH Joint Recommendation. In order to avoid the by-catches of cod in the fisheries targeting other species, **the BSAC advises that the new gears with selective entities developed to avoid the capture**

²⁷ A representative of small scale fisheries is of the opinion that the disturbance effect of trawling on other fish species during the cod spawning season should be considered. This precludes fishing with active gears during this time.

of cod should be implemented as soon as possible. The matter is of utmost urgency for Baltic fishermen, who are at present prevented from using the existing resources.

Cod SDs 22-24

The BSAC recommends that the 2023 EU TAC for western Baltic cod in SDs 22-24 should be **943 tonnes (commercial catches and recreational catches of 1 bag per angler per fishing day)**, which is in accordance with MSY approach scenario in the ICES advice.

In order to avoid the by-catches of cod in the fisheries targeting other species, **the BSAC reiterates** that the new gears with selective entities developed to avoid the capture of cod are implemented as soon as possible.

The German small scale fishermen²⁸ recommend a scientific assessment of the influence of parasites (liver worms) on the natural mortality of cod. They draw attention to the effects of trawling disturbance on other fish species during the cod spawning season and call on not using active gears during this time.

Other small scale fishermen²⁹ are concerned with data issues and take note of scientists artificially inflating F this year for the observational data to match the models.

The Latvian fishermen³⁰ recommend setting the 2023 TAC for western cod at a level slightly higher than in 2022 (45% increase of 2022 TAC = 710 tonnes).

The Danish fishermen³¹ are deeply worried about the very poor scientific background and thorough lack of understanding about what is going on. They support setting the TAC higher than is the case for 2022, but are also concerned that, apparently, most of the cod that are not caught by the fishermen, seem to disappear. Based on their observations cod spawn as expected and the fishermen see numerous small cod over the summer, but after winter they are all gone. It is not acceptable for them to restrict catches and see the fish disappear through predation from cormorants and seals. As is the case for the eastern cod, they believe that a TAC set above the scientific advice to e.g. 3,111 tonnes (median of F_{MSY} and F_{PA}) is defensible. Setting an acceptable quota for these two stocks is a precondition for the continuation of the Danish (and most likely several other countries) demersal fishery in the Baltic.

The Polish fishermen³² recommend setting aside a separate quota for conducting scientific monitoring on cod.

A group of OIG³³ members recommends that the TAC for 2023 should be set at zero for all targeted cod fishing, on the basis of the ICES WGBFAS expert group's opinion recommending a zero catch advice due to high uncertainty and the fact that the WBC is below B_{lim} and has been so for several years. Furthermore, they point to the fact that ICES also emphasises the uncertainties and that the estimated SSB "may be an overestimate"³⁴. They recommend that all spawning areas

²⁸ Association of Fisheries Protection

²⁹ Low Impact Fishers of Europe (LIFE), Association for Low Impact Coastal Fishery PO

³⁰ Latvian Fisheries Association

³¹ Danish Fishers PO (DFPO)

³² Association of Fishermen of Sea-PO supports the TAC of 943 t

³³ CCB, WWF, Finnish Association for Nature Conservation (FANC) and Fisheries Secretariat. <https://irp.cdn-website.com/53007095/files/uploaded/FINAL%20Joint%20NGO%20recommendations%20Baltic%20TACs%202023.pdf>

³⁴ ICES. 2022. Cod (*Gadus morhua*) in subdivisions 22–24, western Baltic stock (western Baltic Sea). In Report of the ICES Advisory Committee, 2022. ICES Advice 2022, cod.27.22–24, <https://doi.org/10.17895/ices.advice.19447868>

must continue to be fully protected and closed from all fishing activities (commercial and recreational) in the relevant spawning period.³⁵ They also recommend increasing at-sea monitoring and control on all vessels using active gears in all areas but prioritised in cod concentration areas, combining both REM and traditional controls as well as introducing additional measures to avoid and minimise cod bycatches in active demersal flatfish fisheries.

The representatives of recreational anglers³⁶ recommend preserving the recreational fishing opportunity for cod in 2023. They also recommend alternative management measures which further lower the recreational catch: e.g. increased minimum landing size, a maximum landing size to protect the biggest cod, targeted management of recreational fishing, intensification of the dialogue between the interest groups, science, and politics. They recommend no dedicated fishing activities on spawning cod, improvement and obligatory use of selective gear to reduce bycatch of cod in commercial fisheries and investigating the impact of cormorant predation on cod stocks.

Cod SDs 25-32

The BSAC clearly recognises that the poor status of the eastern Baltic cod has been largely driven by biological changes in the stock during the last decades. The cod is experiencing reduced growth, reduced biomass and high natural mortality. The decline of the stock has been linked to food availability, selective fishing pressure, hypoxia and anoxia, as well as changes in hydrology. Seal parasites (*Contracaecum*) are affecting the liver of the cod. Seals and cormorants are preying on the cod. Species interactions are to be better studied to measure the effects on the stock. A whole spectrum of factors, both natural and man-made, is having an effect. Fishing is not the only factor that is having an influence.

The BSAC recommends further research on the reasons behind natural mortality of cod and on species dependency. Species interrelations should be included in the ICES advice.

The views of the fisheries representatives on the 2023 TAC for eastern cod are varied. Several fisheries organisations do not agree to setting a zero TAC for 2023 for this stock, if any fishery shall take place at all.

Some fisheries representatives³⁷ underline that fishing mortality has a negligible effect on the current low status of the eastern cod stock. The low growth, poor condition, and high natural mortality of cod are related to the changes in the ecosystem. In the light of this, in their opinion a bycatch quota to allow fishing for other species should be set. A TAC equal to the 2022 bycatch TAC (3,550 t), corresponding to F0.05 will allow stock size (SSB) to increase and will give some opportunities for targeting other species. In their opinion, more research on environmental and predator impacts (such as seals, including the parasite load, and cormorants) on the recovery of cod stock is needed.

A Danish fisheries organisation³⁸ underlines that a zero TAC for cod, enforced under a landing obligation regime is simply not doable if any fishery shall take place at all. They believe that:

- fishery shall indeed exploit the stocks that are abundant, to ensure socio-economic benefits, as well as to maintain a supply of low carbon footprint food resources.

³⁵ Area 22-23: 01. January - 31. March; Area 24: 01. April - 31. August.

³⁶ European Anglers Alliance (EAA), including Deutscher Angelfischerverband (DAFV), see their position paper at <https://www.eaa-europe.org/news/16744/eea-adopts-two-new-position-papers-on-atlantic-salmon-in-the-baltic-and-western-baltic-cod.html>

³⁷ Swedish Fishermen PO (SFPO), Danish Fishers PO (DFPO)

³⁸ Danish Fishers PO (DFPO)

- realistic quota must be set for this stock, sufficiently low to avoid a major effect on stock development, and sufficiently high to allow exploitation of other abundant resources.

They underline that restricting the fishing opportunities in the Baltic for the EU fishers and letting the Russian fishermen catch the fish is tantamount to irresponsible management.

They draw the attention that:

- the spawning stock biomass of eastern Baltic cod is estimated by ICES to be 60,000 tonnes, which is 20% more than ICES estimate of the SSB of the North Sea cod in 2021, where the TAC was set to more than 15,000 tonnes in realisation of the fact that cod would be an unavoidable bycatch
- in many areas in the Baltic cod is also quite abundant and difficult to avoid.

The Polish fishermen³⁹ express their disappointment with the fact that the methodology used by ICES in the assessment has not been improved, despite the lack of positive effects of management decisions on the cod stock, and still does not reflect all factors and changes affecting the stock, such as very low growth rate and interspecies dependence. In their opinion this makes the assessment ineffective for future management decisions.

They cannot agree to a zero TAC for eastern cod, because it would prevent the fishermen from conducting the allowable flatfish fishery, which is especially important for smaller fishing vessels.

They propose a bycatch TAC for eastern cod at a level of 2,500 tonnes which is an absolute minimum needed to continue the flatfish fishery.

They point out that similarly to Germany a Polish research on the ROOFLESS gear was conducted with the National Marine Fisheries Research Institute in Gdynia and the Polish fishermen. The research indicated that bycatches of cod with a ROOFLESS gear were approx. 3 times lower than when fishing without a ROOFLESS gear⁴⁰.

The Polish fishermen⁴¹ recommend setting aside a separate quota to allow conducting scientific monitoring on cod.

The German small scale fishermen⁴² recommend a scientific assessment of the influence of parasites (liver worms) on the natural mortality of cod. They draw attention to the effects of trawling disturbance on other fish species during the cod spawning season and call on not using active gears during this time.

In the opinion of the **Finnish fishermen and small scale fishermen**⁴³ there should be no targeted fishery for cod in SD 24-32 and a bycatch TAC should be set at 600 t. This bycatch TAC could also be used for the purpose of research fishery.

A group of OIG⁴⁴ **members recommends** combining a zero TAC with additional conservation measures such as mandatory use of REM on vessels using active gears in all areas, combined with traditional controls; the use of more selective fishing gears to avoid cod bycatch in the flatfish fishery, increased at-sea control of any exemptions from the landing obligation; a spatial closure to

³⁹ National Chamber of Fish Producers, Association of Fishermen of Sea-PO, the Darłowska Group of Fish Producers and Shipowners, Fish Producers' Organisation Bałtyk

⁴⁰ National Chamber of Fish Producers, Association of Fishermen of Sea-PO, the Darłowska Group of Fish Producers and Shipowners, Fish Producers' Organisation Bałtyk

⁴¹ Association of Fishermen of Sea-PO

⁴² Association of Fisheries Protection

⁴³ Federation of Finnish Fisheries Associations, Finnish Fishermen's Association, Association of Fisheries Protection (Fischereischutzverband) and Association for Low Impact Coastal Fishery PO

⁴⁴ CCB, WWF, Fisheries Secretariat, Finnish Association for Nature Conservation (FANC) and European Anglers Alliance (EAA).

cover all spawning areas in SD 25 and additionally a spatial closure of demersal towed gear in SD 26.

Herring SDs 22-24

The BSAC does not recommend a zero TAC for WBSS in 2023. The BSAC repeats and underlines the need, in accordance with the CFP, to take into account the socio-economic consequences of a zero advice on the fishing industry and the coastal communities it supports.

The BSAC calls for a sustainable solution for both fish and fishers allowing the limited and specialised artisanal fishery in the Baltic to survive, while also allowing for the other Baltic herring and sprat fisheries to continue. Several fleets, processors and communities rely on the western Baltic herring as a component in the targeted fisheries for sprat and other herring stocks.

In the EU Commission's answer to BSAC letter, sent in May 2020⁴⁵, regarding a rebuilding plan for the western Baltic herring, the Commission states that the Multiannual Plan for the Baltic Sea (MAP) provides very clear and useful rules for setting TACs and remedial measures for stocks under pressure, such as western herring. In other words, according to the Commission, a rebuilding plan for western herring as recommended by the BSAC is already contained in the existing MAP for the Baltic Sea.

The BSAC is of the opinion that the MAP should be the guiding tool for managing the western Baltic herring stock and for setting the TAC for 2023. However, **the BSAC calls on** the European Commission and the Member States to submit a request to ICES to prepare and provide updated input to a strategic rebuilding plan for this stock. The ICES advice is crucial for the BSAC to continue the work on the rebuilding plan. **The BSAC recognises** that although the ICES advice clearly underlines that the WBSS stock is increasing in biomass, there is still a need for remedial measures in order to further support the positive development of the stock.

The BSAC recommends advancing with a two-year transitional approach, in which the TAC for WBSS can be set at in accordance with the MAP for 2024. **For 2023 the BSAC recommends** setting the TAC at **7,000 t**, a level equal to 50% of MAP F_{MSY} lower⁴⁶.

The German small scale fishermen⁴⁷ recommend to limit the catches of this stock in the Belts and Sund and in the North Sea. Catch limits in the Baltic alone cannot solve the problem and will only work to the disadvantage of the Baltic fishery. Therefore, as long as this problem is not solved, the German small scale fishermen recommend a **roll-over of** the TAC from 2022 (**788 t**).

A group of OIG members recommends that the TAC for 2023 should be zero. They recommend adjusting the TAC setting procedure for both North Sea Autumn Spawners (NSAS) and WBSS herring, in such a way that minimises catches of the WBSS stock.⁴⁸

Herring SDs 25-29, 32, ex GoR

⁴⁵ <http://www.bsac.dk/getattachment/BSAC-Resources/BSAC-Statements-and-recommendations/Letter-from-BSAC-and-PELAC-on-rebuilding-plan-for/DGMareletter-BSACreply.pdf.aspx?lang=en-GB>

⁴⁶ Danish Pelagic PO (DPPO), Danish Fishers PO (DFPO), National Chamber of Fish Producers, Association of Fishermen of Sea-PO, Swedish Pelagic Federation PO (SPF), Swedish Fishermen PO (SFPO), Fish Producers' Organisation Bałtyk

⁴⁷ Association of Fisheries Protection, Low Impact Fishers of Europe (LIFE)

⁴⁸ CCB, WWF, Fisheries Secretariat, Finnish Association for Nature Conservation (FANC) and European Anglers Alliance (EAA)

The BSAC recommends that the 2023 TAC for herring in the central Baltic management area should be **95,643 tonnes**, which is in accordance with the MAP F_{MSY} scenario in the ICES advice, allowing for an increase in SSB.

The corresponding **EU TAC** in the central Baltic management area for 2022 would be calculated as: 95,643 tonnes + 794 tonnes – 3,211 tonnes = 93,226 tonnes, 93,226 t – 9.5% of the Russian share = **86,557 tonnes (MAP F_{MSY})**.

A group of OIG members⁴⁹ recommends setting the TAC for 2023 at **61,051 tonnes**⁵⁰ (F_{MSY} lower) and to increase control, enforcement, onboard monitoring and sampling of landings to ensure that the misreporting with sprat does not continue⁵¹.

Herring SD 28.1 Gulf of Riga

The BSAC salutes the coordinated efforts of fishermen, environmental NGOs, scientists, and managers that lead to the stock being in a good state.

The BSAC recommends that the 2023 TAC for herring in this management area should be set at 43,226 tonnes, in accordance with the MAP F_{MSY} . The corresponding TAC in the Gulf of Riga management area for 2022 would be calculated as 43,226 tonnes – 794 tonnes + 3,211 tonnes = **45,643 tonnes**.

The Estonian fishermen draw attention to the record low catches of herring in this management area in spring 2022. In their opinion, this fact should be further monitored in order to determine whether a decline in catches reflects any long-term trend in the condition of the stock or is due to cold weather.

Herring SDs 30-31

The BSAC recommends setting the 2023 TAC for herring in this management area at **102,719 tonnes**, which is in accordance with the F_{MSY} scenario, due to the decrease in SSB and the decreased weight-at-age of the larger herring.

A group of OIG members recommends a TAC for herring in SDs 30-31 below F_{MSY} lower level (80,047 t).^{52 53}

The Finnish fisheries representatives⁵⁴ propose to set the TAC for herring in SDs 30-31 between 80,047 – 102,719 tonnes (F_{MSY} lower- F_{MSY}).

The BSAC draws attention to the need to manage the sub-populations separately in the future.

⁴⁹ CCB, WWF, Fisheries Secretariat, Finnish Association for Nature Conservation (FANC) and European Anglers Alliance.

⁵⁰ The lower TAC recommendation of 61,051 tonnes is based on the ICES MSY Flower figure (70,130 tonnes). From both ICES figures we have deducted an assumed 9.5% Russian share, and then added 794 tonnes for Gulf of Riga herring taken in SD 28.2 and deducted 3,211 tonnes for Central Baltic herring taken in Gulf of Riga (SD 28.1).

⁵¹ BalticWaters 2030 supported by Low Impact Fishers of Europe (LIFE), Association for Low Impact Coastal Fishery PO recommends a TAC of 49,077 t (50 percent of F_{MSY}) because of uncertainties in the scientific models and documented misreporting of sprat and herring. This is an approach recommended by Stockholm University Baltic Sea Centre. <https://balticeye.org/sv/policy-briefs/anpassa-sillfisket-till-den-vetenskapliga-osakerheten/>

⁵² CCB, WWF, Fisheries Secretariat, Finnish Association for Nature Conservation (FANC)

⁵³ BalticWaters 2030, Low Impact Fishers of Europe (LIFE), Association for Low Impact Coastal Fishery PO recommends a TAC of 51,360 t (50 percent of F_{MSY}) because of uncertainties in the scientific models and documented misreporting of sprat and herring. This is an approach recommended by Stockholm University Baltic Sea Centre. <https://balticeye.org/sv/policy-briefs/anpassa-sillfisket-till-den-vetenskapliga-osakerheten/>

⁵⁴ Federation of Finnish Fisheries Associations, Finnish Fishermen's Association

Some fisheries representatives⁵⁵ point to a collapse of the coastal fishery of consumption size herring in Bothnian Bay in Sweden. Reasons for the decreased body condition and size of herring are unclear. In their opinion important issues to be investigated are, for example, reasons for the changes in size structure of the stock, changes in spawning time, genetic stock structure, and effects of seals, cormorants and environmental factors on the stock.

The representative of recreational anglers draws attention to the need to manage the fishery for herring in SDs 30-31 to increase the proportion of old/large individuals so as to achieve good environmental status as is required by criteria D3C3 of the Marine Strategy Framework Directive.

Sprat SDs 22-32

The BSAC is of the opinion that the sprat fishery should be maximised to limit the predation of sprat on cod eggs and other food species dependency (copepods). They support setting the **2023 TAC at F_{MSY} upper of 317,905 tonnes**. Taking into account the share for Russia (10.08%), this would give EU TAC of **285,860 tonnes**⁵⁶. This TAC is within the range recommended by ICES and would result in a 3% increase of the SSB in 2024. They strongly believe that predation of sprat on cod eggs and larvae in the Baltic and further limitation of clupeid (sprat, herring) catches could be an important factor hampering cod stock recovery. Setting the TAC at the upper F_{MSY} will help the situation for cod.

The BSAC would like to provide a further rationale for using the upper F_{MSY} option for **sprat**⁵⁷. According to the Baltic MAP Article 4.5⁵⁸, F_{MSY} upper may be used under the condition that the stock is above $MSY B_{trigger}$ but also, if there is scientific advice or evidence that there may be negative interspecific interactions. The sprat SSB is well above the reference values, so the first part of this condition is met.

The BSAC is of the opinion that the second part of the condition is also met. Sprat predation on cod eggs is well known and scientifically documented, and with the current situation for the cod

⁵⁵ Swedish Fishermen PO (SFPO)

⁵⁶ Sweden Pelagic Federation PO (SPF), Swedish Fishermen PO (SFPO), Finnish Fishermen's Association, National Chamber of Fish Producers, Association of Fishermen of Sea-PO, the Dałowska Group of Fish Producers and Shipowners, EFFOP, Danish Pelagic PO (DPPO), Danish Fishers PO (DFPO), Fish Producers' Organisation Bałtyk, Estonian Fishermen's Association

⁵⁷ The references/literature provided by Sweden Pelagic Federation PO (SPF): [Fish egg predation by Baltic sprat and herring: do species characteristics and development stage matter? \(cdnsiencepub.com\)](#); (PDF) [Food-web and climate-related dynamics in the Baltic Sea: Present and potential future applications in fish stock assessment and management \(researchgate.net\)](#); [Harvesting forage fish can prevent fishing-induced population collapses of large piscivorous fish | PNAS](#) ; [Forage fish for cod and people | PNAS](#)

⁵⁸ [REGULATION \(EU\) 2016/ 1139 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL - of 6 July 2016 - establishing a multiannual plan for the stocks of cod, herring and sprat in the Baltic Sea and the fisheries exploiting those stocks, amending Council Regulation \(EC\) No 2187 / 2005 and repealing Council Regulation \(EC\) No 1098 / 2007 \(europa.eu\)](#), ARTICLE 4.5

4. *Notwithstanding paragraphs 2 and 3, fishing opportunities for a stock may be fixed in accordance with the fishing mortality ranges set out in Annex I, column B, provided that the stock concerned is above the minimum spawning stock biomass reference point set out in Annex II, column A:*

(a) if, on the basis of scientific advice or evidence, it is necessary for the achievement of the objectives laid down in Article 3 in the case of mixed fisheries;

(b) if, on the basis of scientific advice or evidence, it is necessary to avoid serious harm to a stock caused by intra- or inter-species stock dynamics;

or (c) in order to limit variations in fishing opportunities between consecutive years to not more than 20 %. The application of this paragraph shall be explained by a reference to one or more of the conditions set out in points (a) to (c) of the first subparagraph.

stocks all measures should be taken to reduce the natural mortality of the cod, including using the higher range for sprat to reduce egg predation as well as food competition between sprat and juvenile cod for plankton. Sprat may also serve as prey items for bigger cod, but this requires the cod to get big enough to actually eat the sprat. This is rarely the case these days.

Furthermore, sprat competes with both herring and small/juvenile cod for food, and a lower sprat biomass may therefore be positive to allow both the central Baltic herring to recover from its current low biomass levels as well as help the cod stocks recover. Therefore, the BSAC is of the opinion that maximising the sprat quota therefore is in accordance with the ecosystem approach and fulfils the requirements set in the Baltic Sea MAP for utilising the upper F_{MSY} range.

The BSAC underlines the contribution of fisheries to food security in the Baltic region in the context of the war in Ukraine. Sprat and herring are strategic food resources. The current crisis-war situation should be taken into account when discussing and deciding on the fishing opportunities for 2023 in the Baltic.

Some Danish fisheries representatives⁵⁹ suspect that the present low condition of the sprat compared with the situation in the 1990s, is a sign of density dependent effects within the stock. This issue is also brought up in the ICES WG report. These intraspecies effects should be taken into consideration when estimating F_{MSY} and setting the TAC for the stock and should be further investigated by ICES.

The BSAC points out that the ICES advice does not contain advice for a spatial management for the fisheries that catch sprat⁶⁰.

A group of OIG members⁶¹ recommends setting the 2023 TAC in the lower F range, i.e. between F_{MSY} lower (**165,227 tonnes**) and F_{MSY} (**224,114 tonnes**). The TAC of 224,111 tonnes is based on ICES advice of F_{MSY} (**249,237 tonnes**). The lower TAC of 165,227 tonnes is based on the ICES F_{MSY} lower figure (**183,794 tonnes**). The assumed Russian share (10.08%) was deducted from the ICES advised figures. This recommendation is based on F being above F_{MSY} , misreporting issues and the need to consider interspecies dynamics. If spatial management and measures to account for species interactions are not put in place (e.g. by moving the fishery further north), the TAC should be set at F_{lower} , $\leq 165,227$ tonnes, to maximise food availability for cod in SDs 25-26. They recommend to increase control, enforcement, onboard monitoring and sampling of landings to ensure that the misreporting of sprat as herring does not continue.

Some representatives of the OIG⁶² state that sprat and herring can be strategic food resources, but they are also critical to the ecosystem in the Baltic Sea and important for species such as cod, marine mammals, and sea birds. Currently, many Baltic stocks are at low levels and many coastal fisheries in Sweden are having problems in finding fish large enough for human consumption⁶³. In their opinion most sprat and herring caught in the Baltic Sea goes into fishmeal and oil production,

⁵⁹ Danish Pelagic PO (DPPO), Danish Fishers PO (DFPO)

⁶⁰ Fisheries Secretariat and WWF draw attention to the fact that while the ICES advice sheet does not contain advice for a spatial management for the fisheries that catch sprat, the more detailed ICES Ecosystem Overview for the Baltic Sea (2021) clearly advice a spatial management. The ICES advice sheet thus provides the information that sprat is an important forage fish for cod, and that multispecies interactions should be considered while managing sprat fishery.

⁶¹ CCB, WWF, Fisheries Secretariat, Finnish Association for Nature Conservation (FANC) and European Anglers Alliance (EAA).

⁶² WWF, Fisheries Secretariat, BalticWaters2030

⁶³ <https://www.slu.se/globalassets/ew/org/inst/aqua/externwebb/radgivning/faq-sillstromming/faq-sill-stromming-pdf-v2021-06-01-komplettering-2022-03-15.pdf>

which can go to aquaculture, but also to mink farms and producers of pet food. Regarding food security, they want to stress the importance of rebuilding stocks in the Baltic Sea for the future and safeguarding fish for direct human consumption. In their opinion, to increase food security the Member States should take advantage of Article 17 in the CFP and prioritise small scale environment-friendly fisheries, which serve for direct human consumption.

Even though the spawning stock biomass for sprat is above $MSY B_{trigger}$, the fishing pressure on sprat has been above F_{MSY} levels since 2001, and the estimated recruitment for 2022 is low. There is also a problem with species misreporting of sprat and herring, and there is evidence of sprat being misreported as herring and flounder in recent years. There is more to consider. “sprat is an important forage species for Baltic cod, and multispecies interactions should be considered when managing the sprat fishery”, as stated by ICES in the latest advice sheet⁶⁴. This is a well-known scientific fact, as is the food shortage as a factor constraining the growth of eastern Baltic cod. The content of sprat in cod diet has decreased over the years, as has the condition of the cod where starvation currently is a major cause of death⁶⁵. Sprat does no longer have the same distribution area as Eastern Baltic cod, and research suggest a reduced sprat fishery in the areas where cod is present.⁶⁶ This is also supported in the latest ICES Ecosystem overview (from December 2021) where ICES advises that “a spatial management plan is developed for fisheries that catch sprat, with the aim to improve feeding conditions for cod”.⁶⁷

A group of OIG members therefore wants to urge the European Commission and the Member States not to exceed the F_{MSY} point value level, which would not be according to the MAP, but to consider setting the TAC for sprat in the lower F_{MSY} range or to 50 percent of F_{MSY} , which would also be a step towards implementation of ecosystem-based approach to fisheries management as required by the Common Fisheries Policy⁶⁸.

Plaice in SDs 22-32

The BSAC recommends setting the 2023 TAC for plaice in SDs 22-32 in accordance with the ICES MSY approach at **13,315 tonnes**.

This is based on the ICES F_{MSY} catch scenario for plaice in SDs 21-23 and in SDs 24-32.

The BSAC repeats its urgent message to implement more selective gears in the plaice fishery in order to avoid by-catch of cod in the flatfish fisheries. Given the continued positive development of the plaice stock in SDs 21-23, this is even more urgent.

⁶⁴ ICES. 2022. Sprat (*Sprattus sprattus*) in Subdivisions 22-32 (Baltic Sea). In Report of the ICES Advisory Committee, 2022. ICES Advice 2022, spr.27.22-32. <https://doi.org/10.17895/ices.advice.19453856>.

⁶⁵ Neuenfeldt, S., Bartolino, V., Orio, A., Andersen, K. H., Andersen, N. G., Niiranen, S., Bergström, U., Ustup, D., Kulatska, N., and Casini, M. (2019) Feeding and growth of Atlantic cod (*Gadus morhua* L.) in the eastern Baltic Sea under environmental change. – ICES Journal of Marine Science, doi:10.1093/icesjms/fsz224.

⁶⁶ Andreas C. Bryhn, Sara Bergek, Ulf Bergström, Michele Casini, Elin Dahlgren, Caroline Ek, Joakim Hjelm, Sara Königson, Peter Ljungberg, Karl Lundström, Sven Gunnar Lunneryd, Maria Ovegård, Mattias Sköld, Daniel Valentinsson, Francesca Vitale, Håkan Wennhage. (2022). Which factors can affect the productivity and dynamics of cod stocks in the Baltic Sea, Kattegat and Skagerrak? *Ocean & Coastal Management*, Volume 223, 2022, 106154, ISSN 0964-5691, <https://doi.org/10.1016/j.ocecoaman.2022.106154>.

⁶⁷ ICES. 2021. Baltic Sea Ecoregion – Ecosystem overview. In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, Section 4.1, <https://doi.org/10.17895/ices.advice.9437>.

⁶⁸ BalticWaters 2030 recommends a TAC of 124,610 t (50 percent of F_{MSY}) because of uncertainties in the scientific models and documented misreporting of sprat and herring. This is an approach recommended by Stockholm University Baltic Sea Centre⁶⁸. <http://balticeye.org/sv/policy-briefs/anpassa-sillfisket-till-den-vetenskapliga-osakerheten/>

The Danish fishermen⁶⁹ would like to see a significant increase in plaice TAC for 2023.

A group of OIG members⁷⁰ recommends considering a TAC lower than 13,315 t to safeguard and help recover eastern and western Baltic cod, which are taken as bycatch in the flatfish fisheries⁷¹.

A group of OIG members also recommends enhanced catch monitoring and control on all vessels in the targeted flatfish fishery because of the high volumes of cod bycatches and mandatory use of REM on all vessels in the targeted flatfish fishery because of the high volumes of cod bycatches and a spatial closure for vessels operating with bottom towed gear in SDs 22, 24, 25 and 26 where eastern Baltic cod is most abundant to avoid bycatch of the stock, for which a zero TAC is recommended.

Salmon in SDs 22-31

The BSAC takes note that ICES has not updated the advice on fishing opportunities for salmon in SDs 22-31 in 2023, and the advice is based on 2022 advice as ICES considers the situation unchanged. ICES advises that according to the MSY approach, the catch of salmon in the mixed-stock sea fisheries (both commercial and recreational) should be zero in 2023. ICES advises that if spatial-temporal management can be implemented, some fishing opportunities would be possible in the coastal fisheries in the Gulf of Bothnia and the Åland Sea (in SDs 29 north–31).

The Finnish Fishermen⁷² recommend setting the TAC for 2023 according to scientific advice, at the same level as for 2022 and under similar conditions. No more than **75,000 salmon** should be taken in the Gulf of Bothnia and the Åland Sea in the SDs 29 (north) - 31 within 4nm from the coast.

The views of the fisheries representatives on the 2023 TAC for salmon in SDs 22-32 are varied. Several fisheries organisations do not agree to setting a zero TAC for salmon in the mixed-stock sea fisheries.

The Danish fishermen⁷³ are still shocked by the new management introduced last year. It has had a major effect on those who fish salmon in Denmark and prevented them from pursuing their traditional fishery, at the same time transferring the fish to fishermen from other countries. In their opinion this is not acceptable, and they hope that the issue of shifting a part of the fishing pressure back to the open sea for fishers that do not have access to areas where terminal fishery can be performed can be dealt with at an appropriate time.

The Polish Fishermen⁷⁴ are of the view that the advised ICES advice will have a major effect on those who fish salmon. Salmon fishery in Poland is carried out by a limited number of small vessels and their catches cannot threaten the salmon population in the Baltic. They ask to set **the**

⁶⁹ Danish Fishers PO (DFPO)

⁷⁰ CCB, WWF, Fisheries Secretariat, Finnish Association for Nature Conservation (FANC) and European Anglers Alliance

⁷¹ BalticWaters2030, supported by Low Impact Fishers of Europe (LIFE), Association for Low Impact Coastal Fishery PO recommends a TAC of 8,681 t (50 percent of F_{MSY}) and that fishing with gears that can lead to a bycatch of cod, especially in areas important to the species, should be stopped or kept to a minimum

⁷² Finnish Fishermen's Association

⁷³ Danish Fishers PO (DFPO)

⁷⁴ Association of Fishermen of Sea-PO

salmon TAC in SDs 22-31 at the level of 2020 (91,132 salmon). They draw attention to the negative impact of seals and cormorants on salmon stocks.

The BSAC is in consensus on the need to look at a renewed management of the Baltic salmon in all SDs. It repeats its calls to initiate the work on developing a management plan.

A group of OIG members⁷⁵ recommend to close targeted fishing for salmon with mixed stock origin in the main basin areas should be closed (commercial and recreational) and to set a TAC at no more than 50,000 salmon in SDs 29 (north) - 31 within 4 nautical miles from the coast.⁷⁶

The representatives of recreational anglers⁷⁷ recommend increasing actions leading to the free migration of salmon in rivers, both up and downstream, river restoration⁷⁸ and to prevent over exploitation by predators. They highlight the need for a European cormorant management. For 2023 they recommend setting a bag limit of one salmon per angler per day south of latitude 59.30 N.

Salmon in SD 32

The BSAC takes note that ICES has not updated the advice on fishing opportunities for salmon in SD 32 in 2023, and the advice is based on 2022 advice as ICES considers the situation unchanged.

The BSAC recommends that the 2023 TAC for salmon in SD 32 should be no more than **11,800 salmon**. This would correspond to reported commercial landings of 10,100 salmon.

A group of OIG members⁷⁹ recommends that the TAC for 2023 should not exceed 9204 salmon (Russian catches deducted).

⁷⁵ CCB, WWF, Fisheries Secretariat, Finnish Association for Nature Conservation (FANC)

⁷⁶ Based on ICES headline advice and the scenario 8, Table 2 p.7

⁷⁷ European Anglers Alliance (EAA), including Deutscher Angelfischerverband (DAFV), see their position paper <https://www.eaa-europe.org/news/16744/eaa-adopts-two-new-position-papers-on-atlantic-salmon-in-the-baltic-and-western-baltic-cod.html>.

⁷⁸ Danish Recreational Fishermen DRF support additional measures proposed by EAA, leading to free migration of salmon in rivers.

⁷⁹ CCB, WWF, Fisheries Secretariat, Finnish Association for Nature Conservation (FANC)